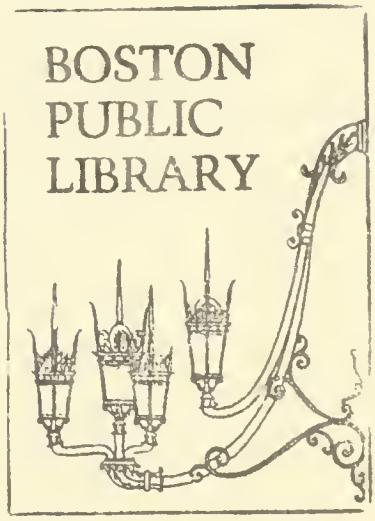
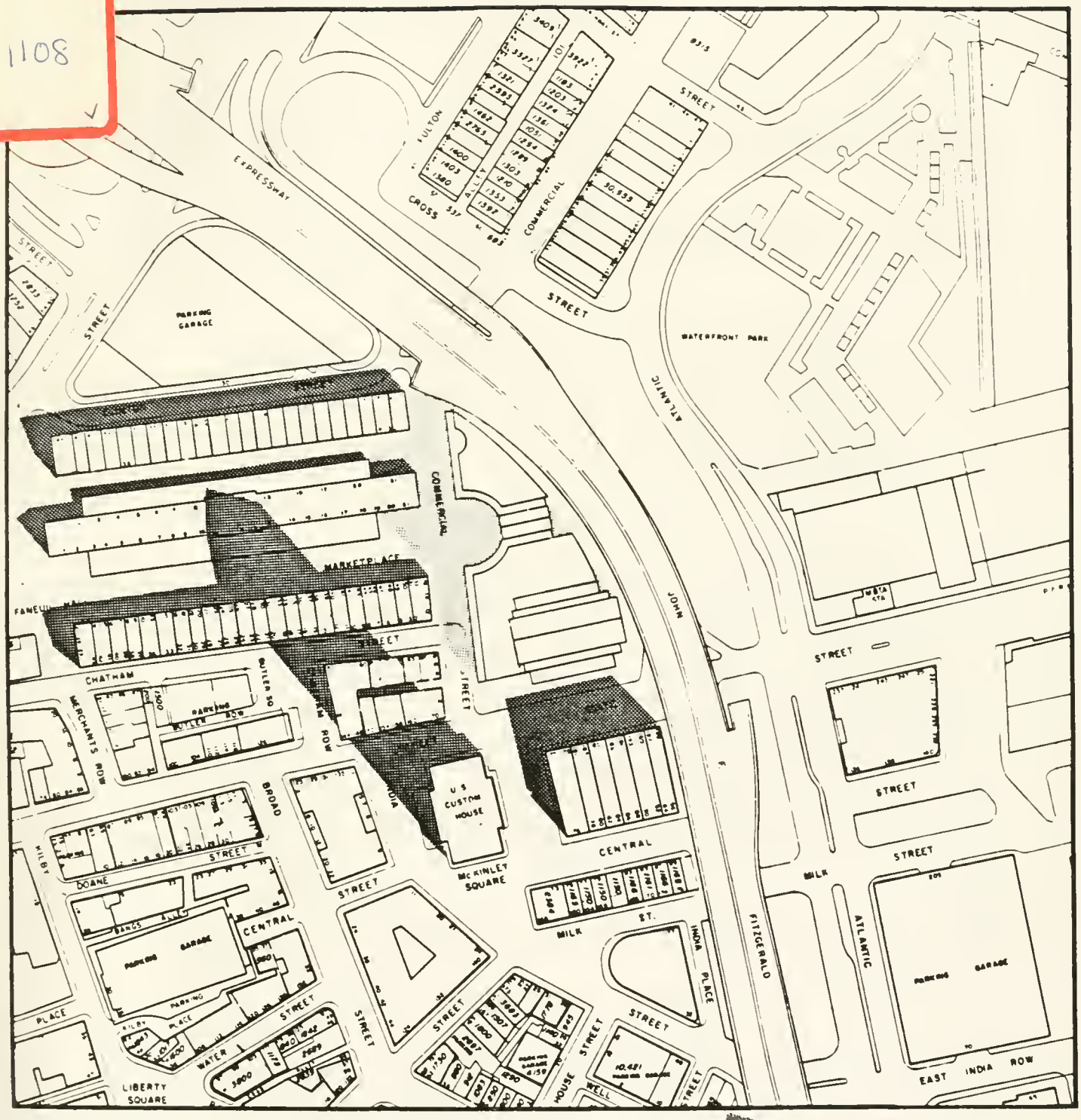
GOV DOC
BRA
1108


BOSTON
PUBLIC
LIBRARY

GOV
BRA
1108



MARKETPLACE CENTER

BOSTON MA

BOSTON PUBLIC LIBRARY

SHADOW STUDY

0 50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME 10:00 AM

MARKETPLACE CENTER

3. Shadow Impacts

Any building casts shadows, and in an urban setting, there are often complex and overlapping shadow patterns as the sun moves across the sky.

The only shadow impacts caused by the construction of Marketplace Center will be in mid-morning on Commercial Street and on a small portion of what is called Waterfront Park in late afternoon during the winter.

a. Commercial Street - Anything above a three story building on Parcel D-10 will impact Commercial Street for a short period of time in the morning. However, during those hours Commercial Street will be used as a service street for the many trucks which serve the Faneuil Hall Markets. At mid-day, when the greatest concentration of pedestrians are in the area, it is the Custom House Tower itself which puts Commercial Street into shadow.

b. Waterfront Park - In winter, when few people use the park, it is impacted in late afternoon by virtually all the buildings in the area, including the Custom House Tower and the historic State Street Granite Block. The grassy plot immediately adjacent to Atlantic Avenue, which is most impacted by Marketplace Center is, in reality, not a part of the park. It is a development parcel which was created in the late 1970's by a committee which brought about, through legal action, changes to the Waterfront Urban Renewal Plan of 1964. This committee was made up of representatives of the Waterfront Residents Association, the North End, the B.R.A. and many other groups including the Sierra Club.

In terms of Marketplace Center, several design features lessen overall shadow impacts:

a. The setback of the office element from Commercial Street.

b. The setback of the third story along Commercial Street.

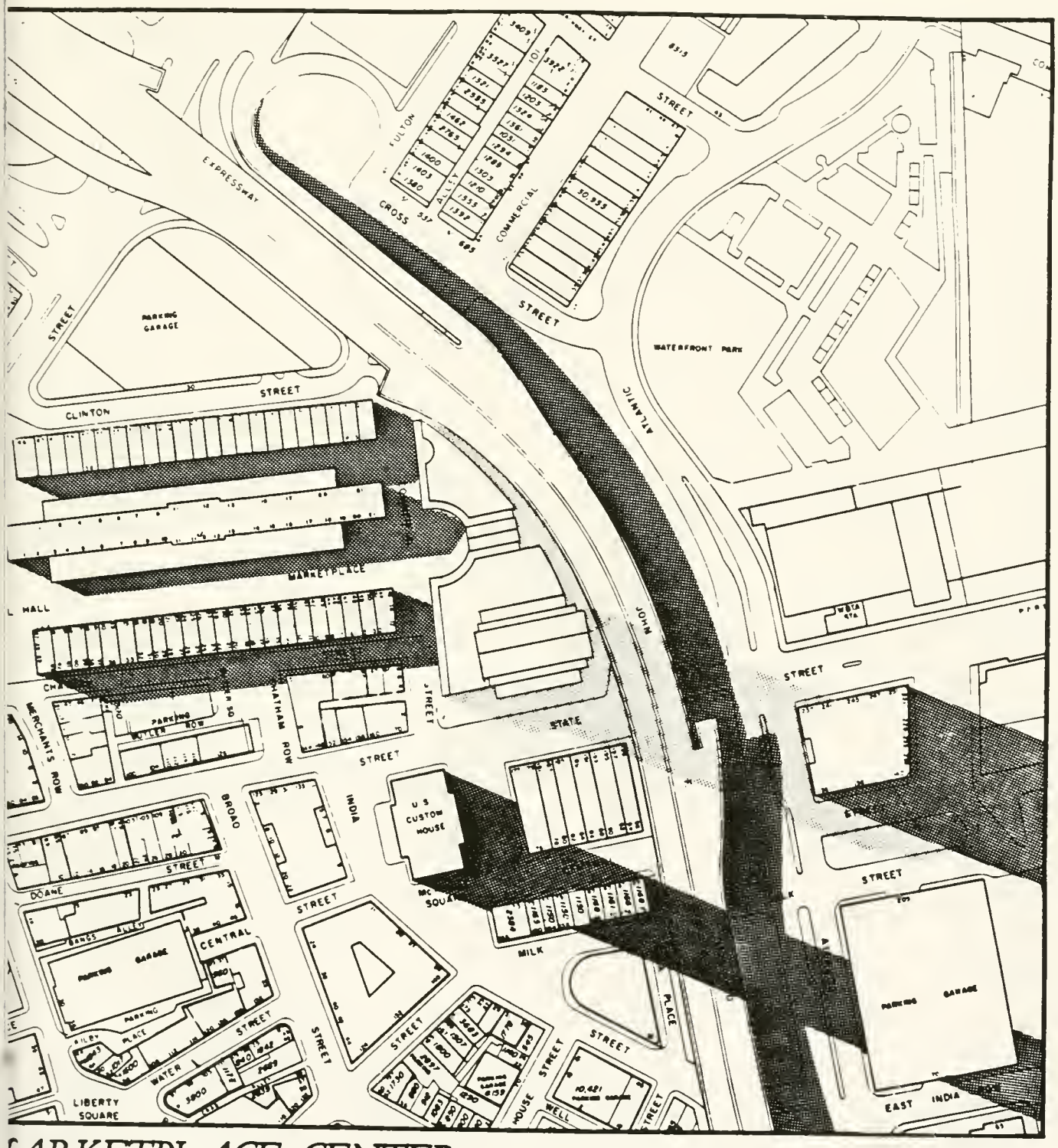
c. The creation of a large public plaza within the site at the end of South Market Street.

d. The sensitive shaping of the top of the office building with setbacks and a pitched roof which allow more light into the surroundings than would a "squared off" building built to the same allowed height.

Included are shadow studies done for the previous 280 foot high building as well as for the current 220 foot building which is the subject of this E.I.R.

SHADOWS FOR PREVIOUS

280 FT. BUILDING



MARKETPLACE CENTER

TON MA

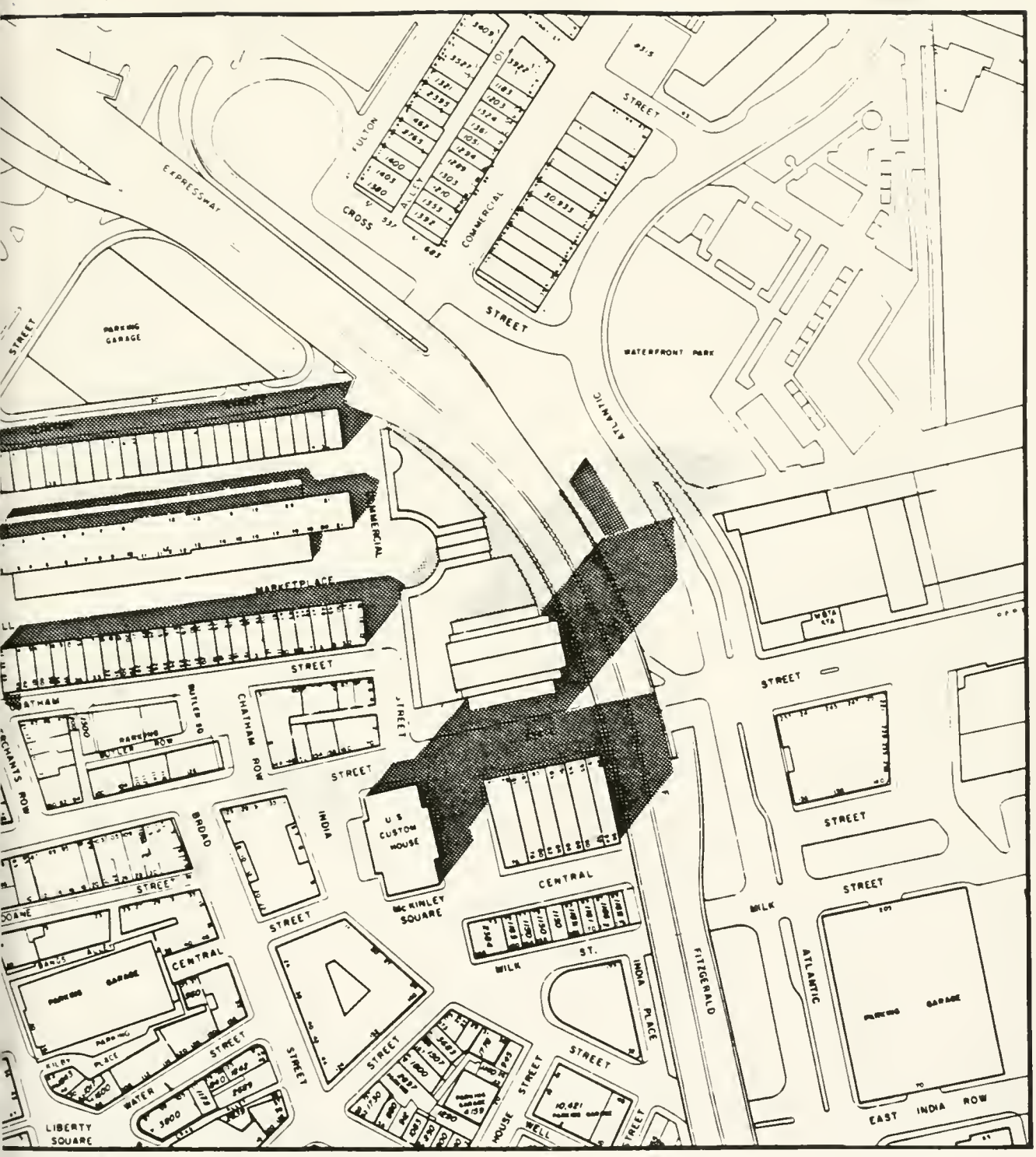
SHADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME: 4:00 PM



ARKETPLACE CENTER

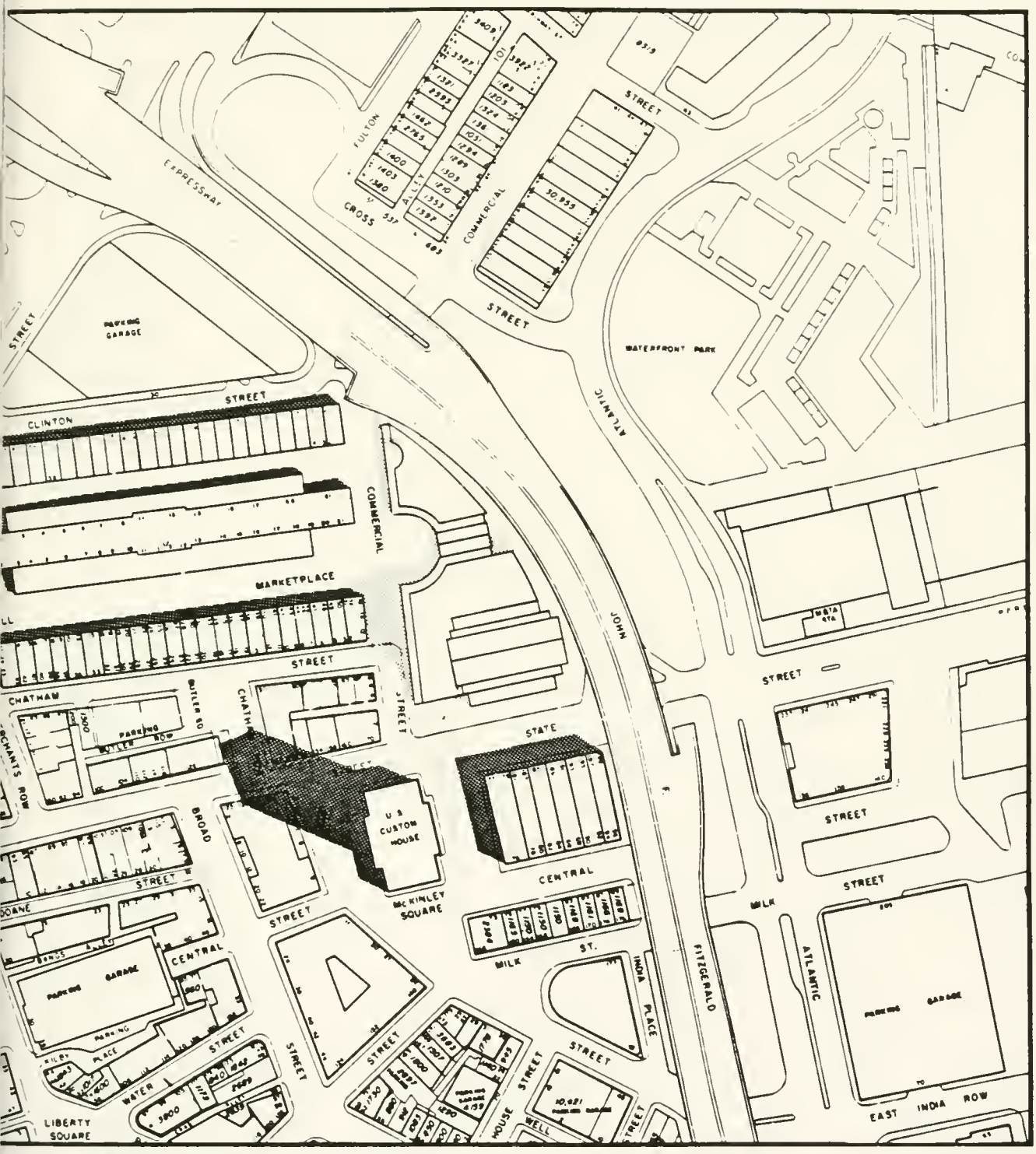
)N MA

.DOW STUDY

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME: 2:00 PM



ARKETPLACE CENTER

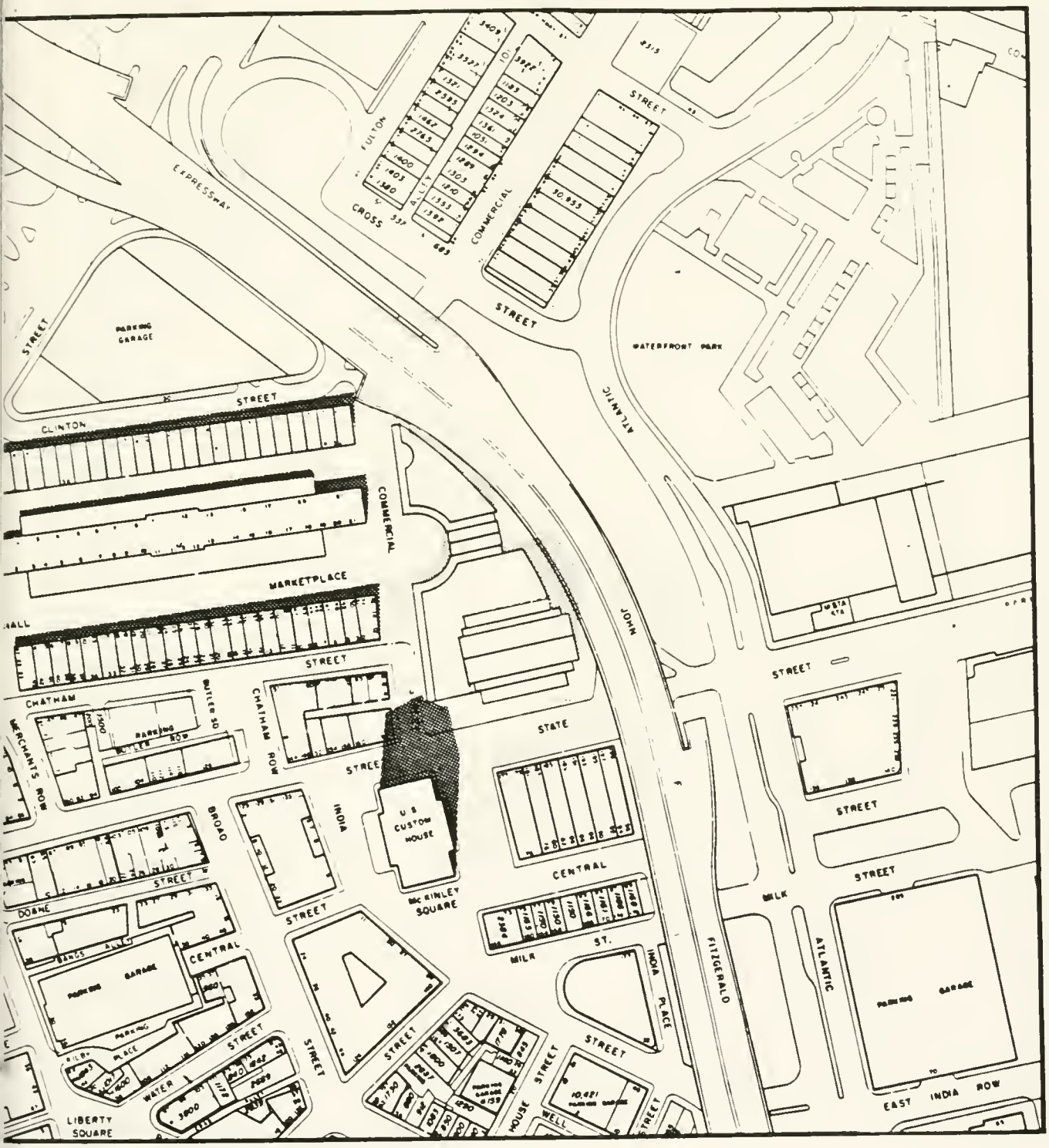
ON MA

DOW STUDY

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 10:00 AM



MARKETPLACE CENTER

TON MA

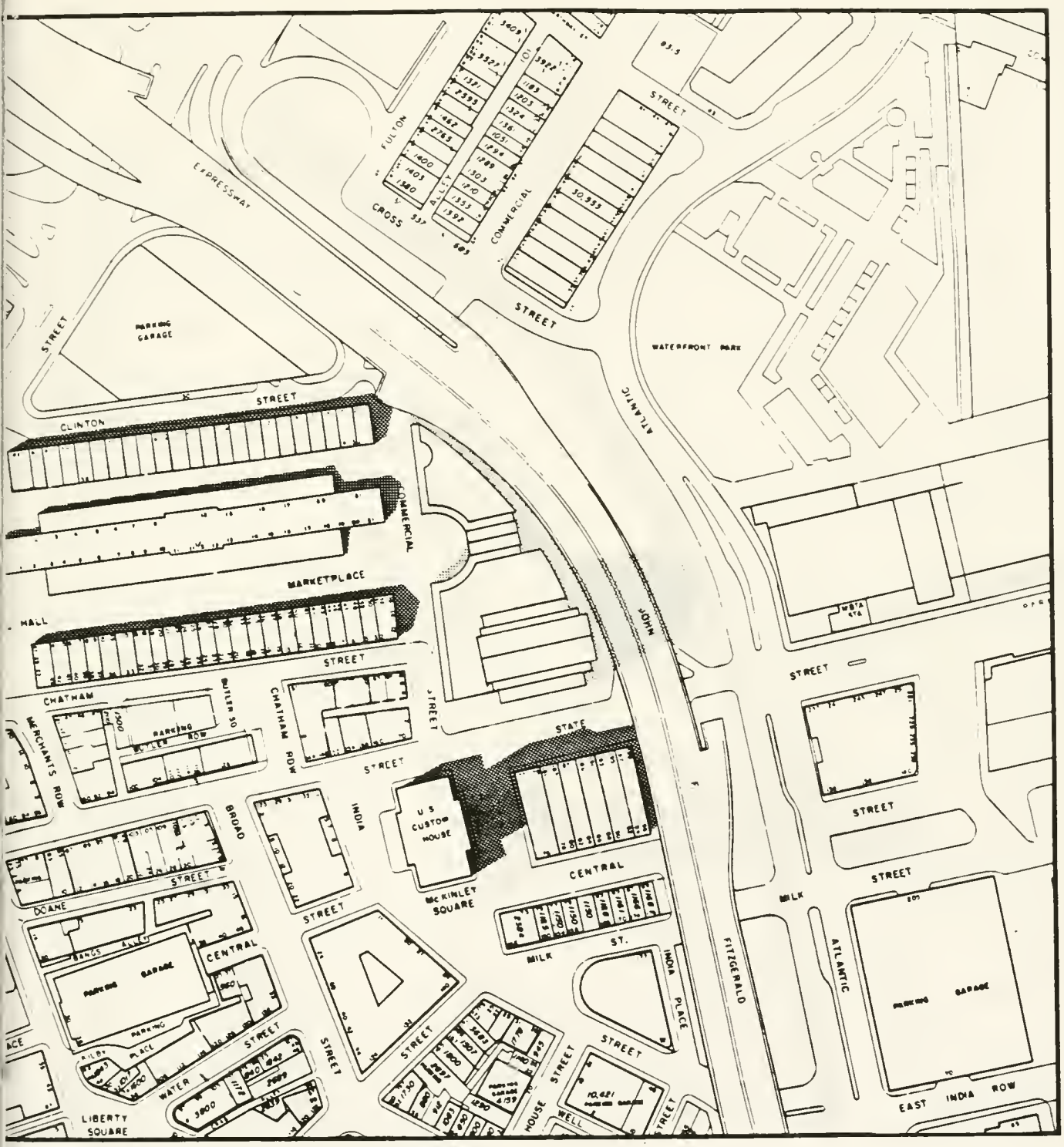
ADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 12:00 AM



MARKETPLACE CENTER

STON MA

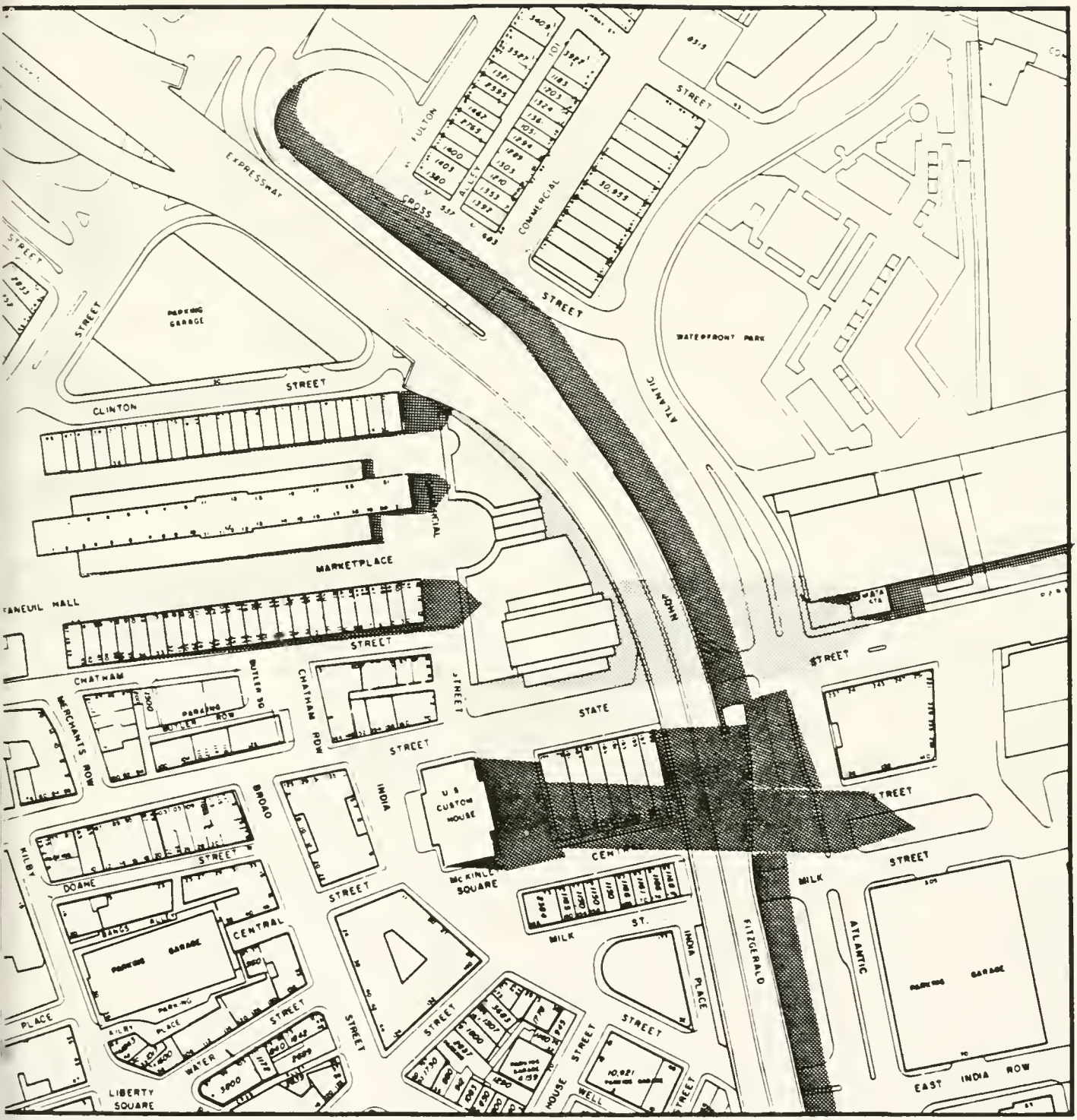
HADOW STUDY

0 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 2:00 PM



MARKETPLACE CENTER

BOSTON MA

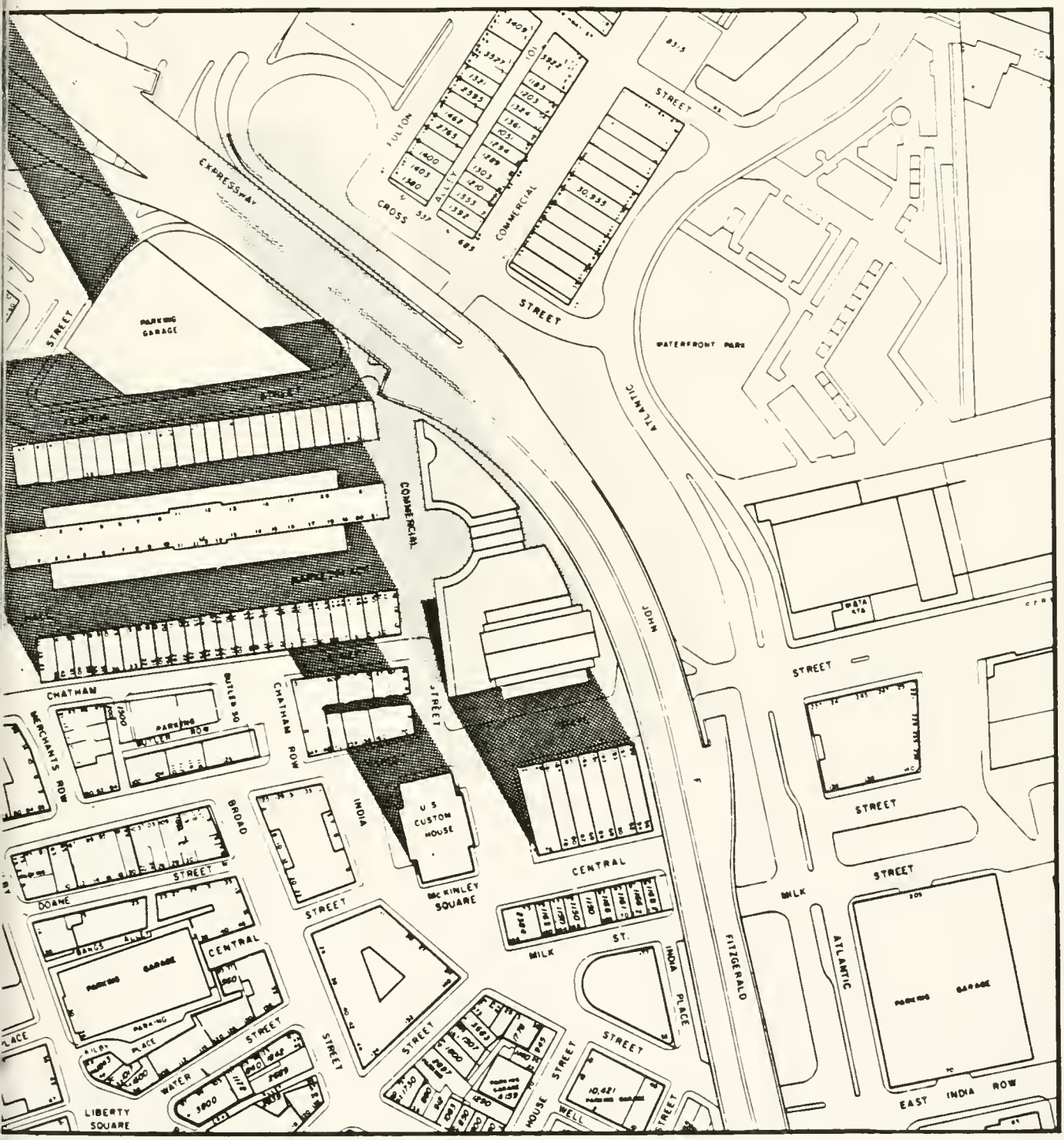
SHADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE JUNE 22 TIME 4:00 PM



MARKETPLACE CENTER

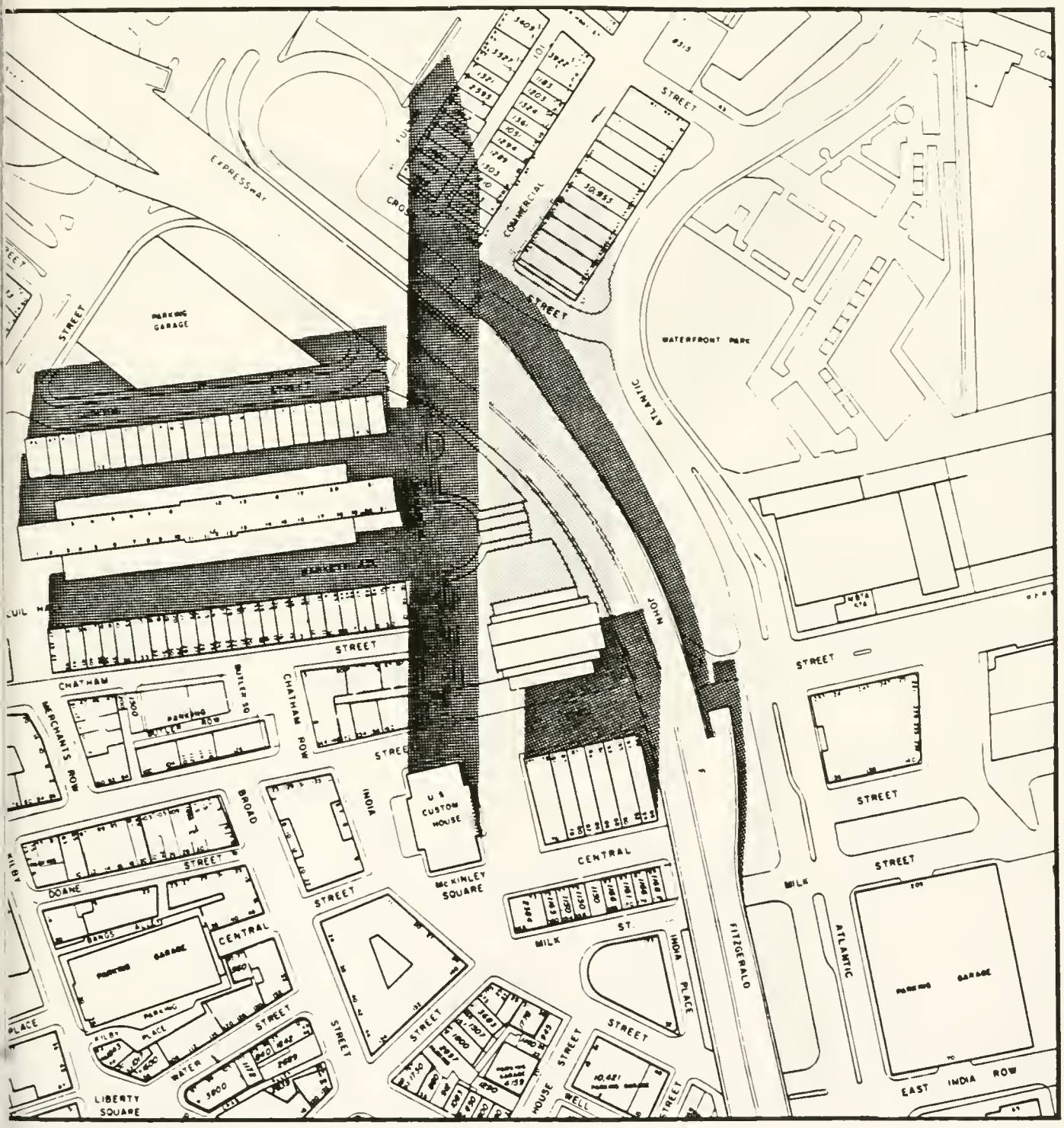
OSTON MA

HADOW STUDY

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DEC. 22 TIME: 10:00 AM



MARKETPLACE CENTER

OSTON MA

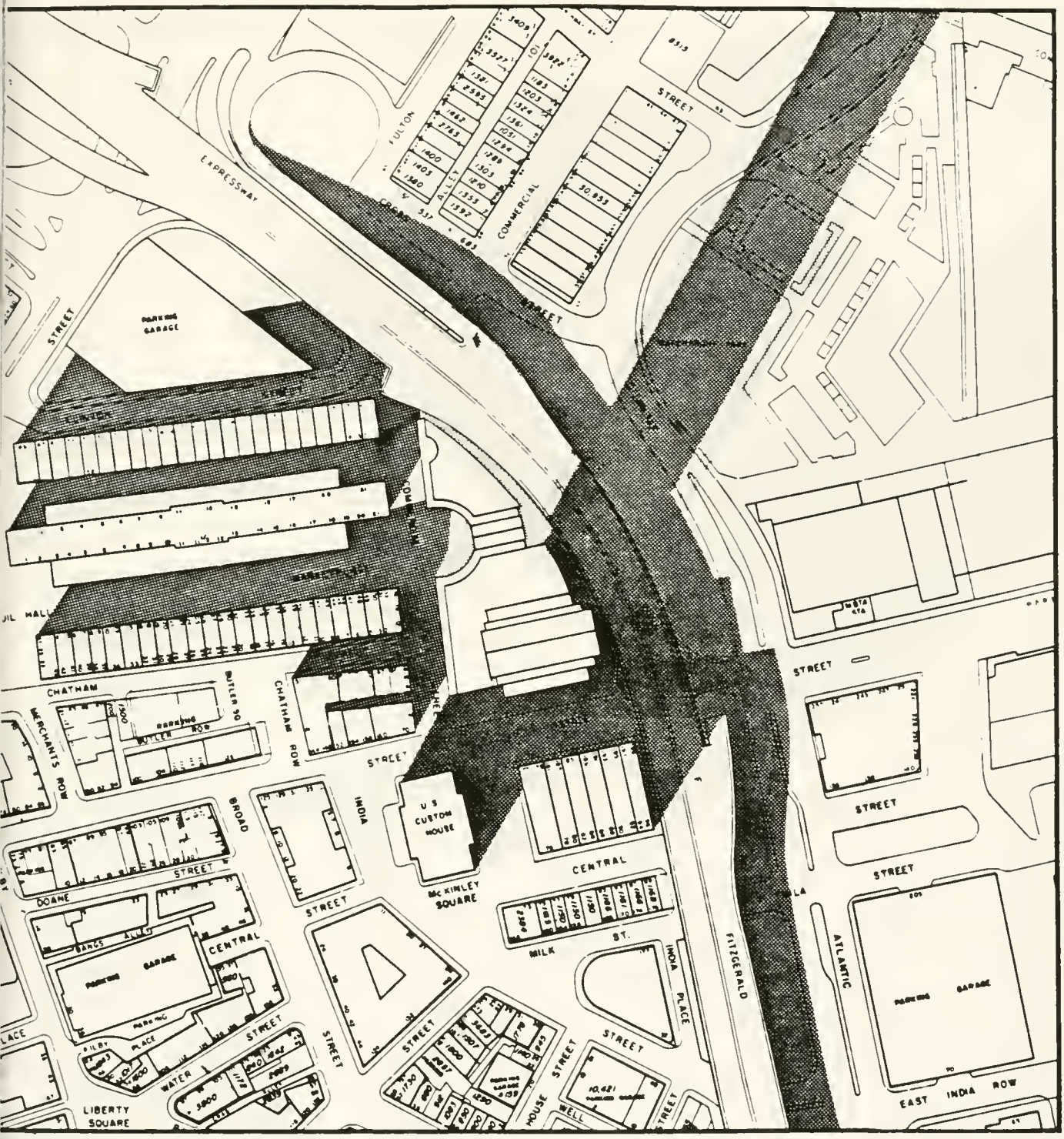
HADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DECEMBER 22 TIME: 12:00 AM



MARKETPLACE CENTER

STON MA

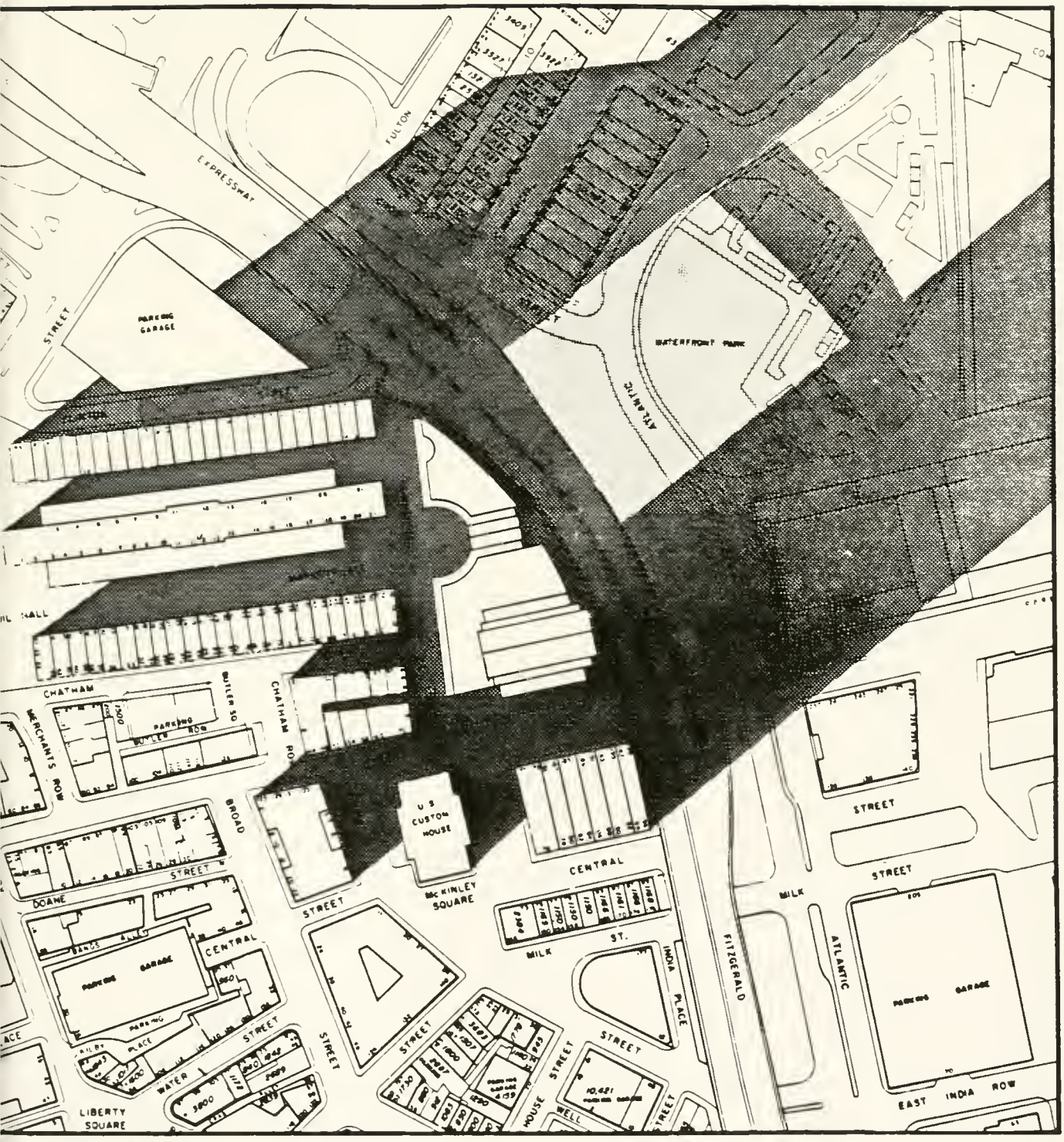
HADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE DEC. 22 TIME 2:00 PM



MARKETPLACE CENTER

STON MA

HADOW STUDY

0 100 200 300 400

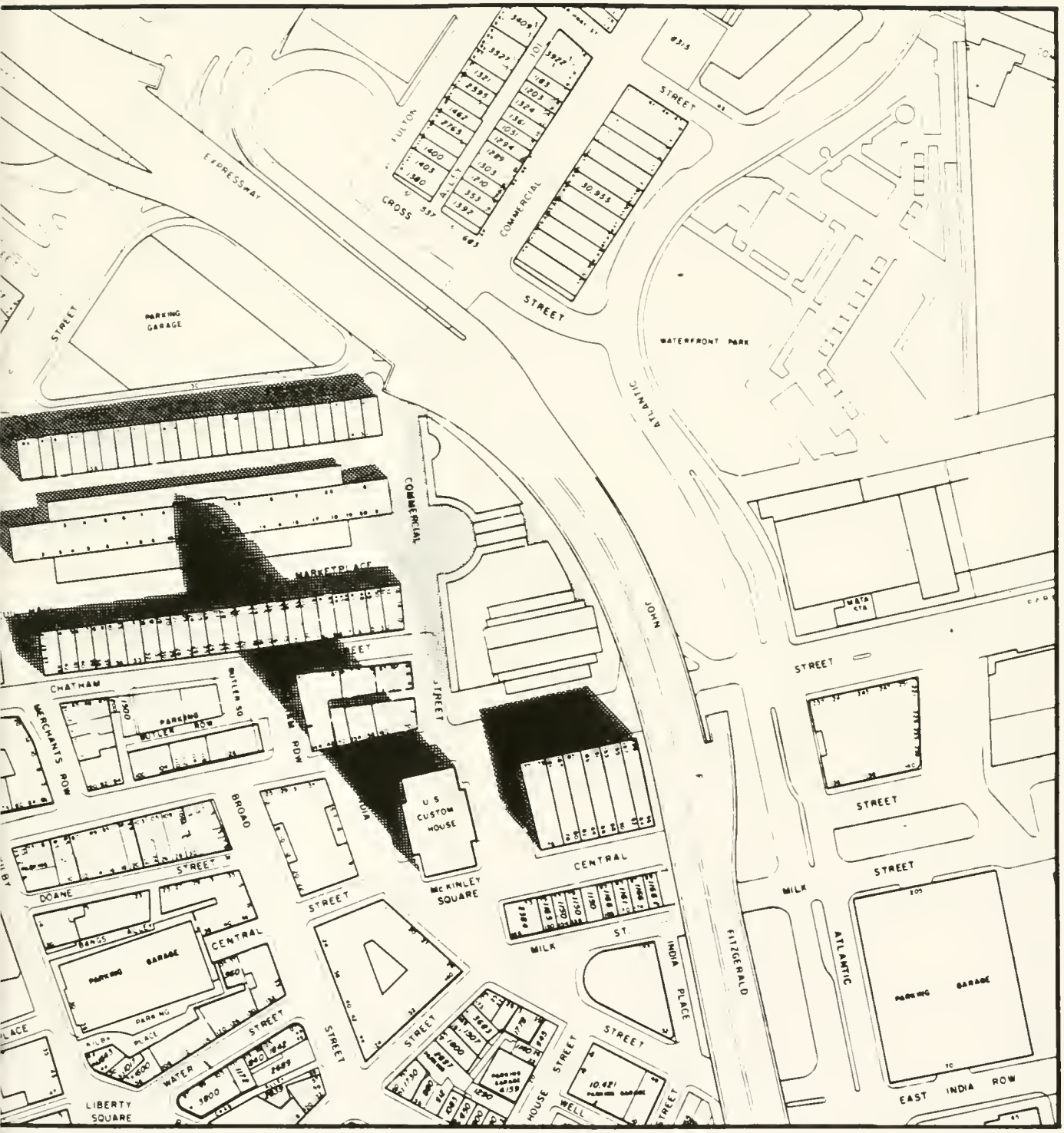
SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE DECEMBER 22 TIME 4:00 PM

SHADOWS FOR CURRENT

220 FT. BUILDING



MARKETPLACE CENTER

OSTON MA

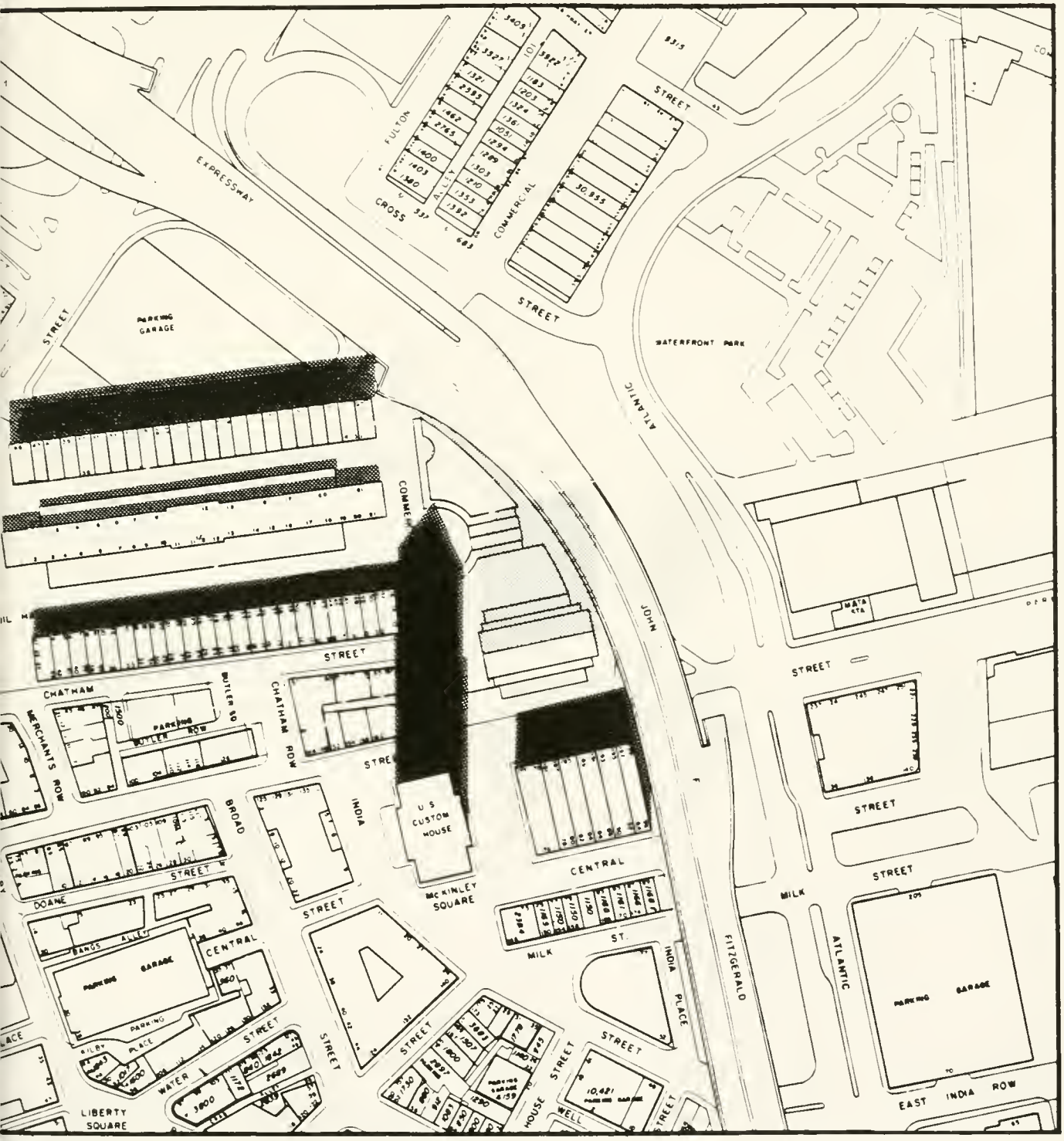
HADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE MARCH 21/ SEPT. 23 TIME 10:00 AM



MARKETPLACE CENTER

STON MA

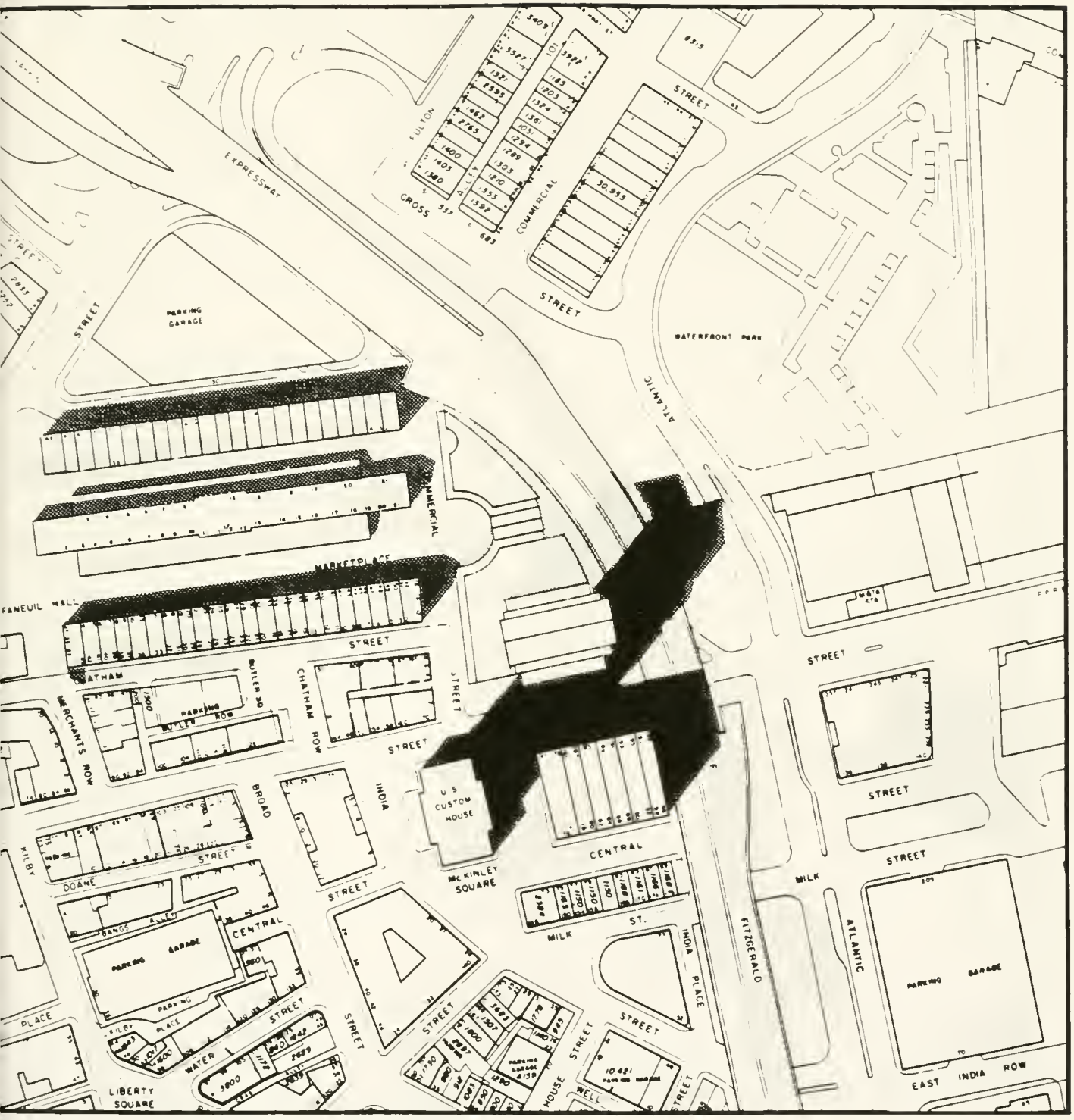
HADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME: 12:00 AM



MARKETPLACE CENTER

BOSTON MA

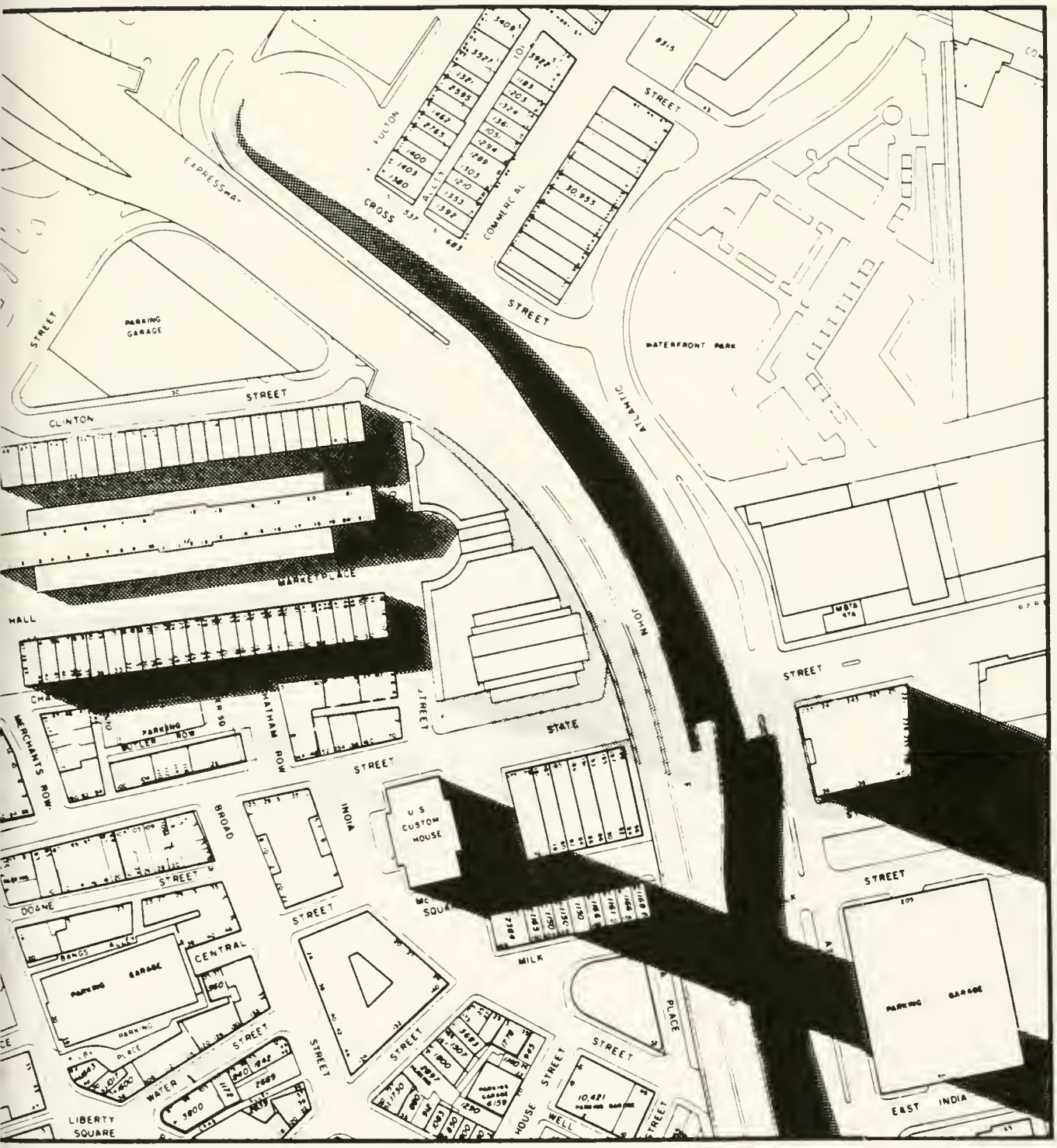
SHADOW STUDY

0 50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME: 2:00 PM



MARKETPLACE CENTER

TON MA

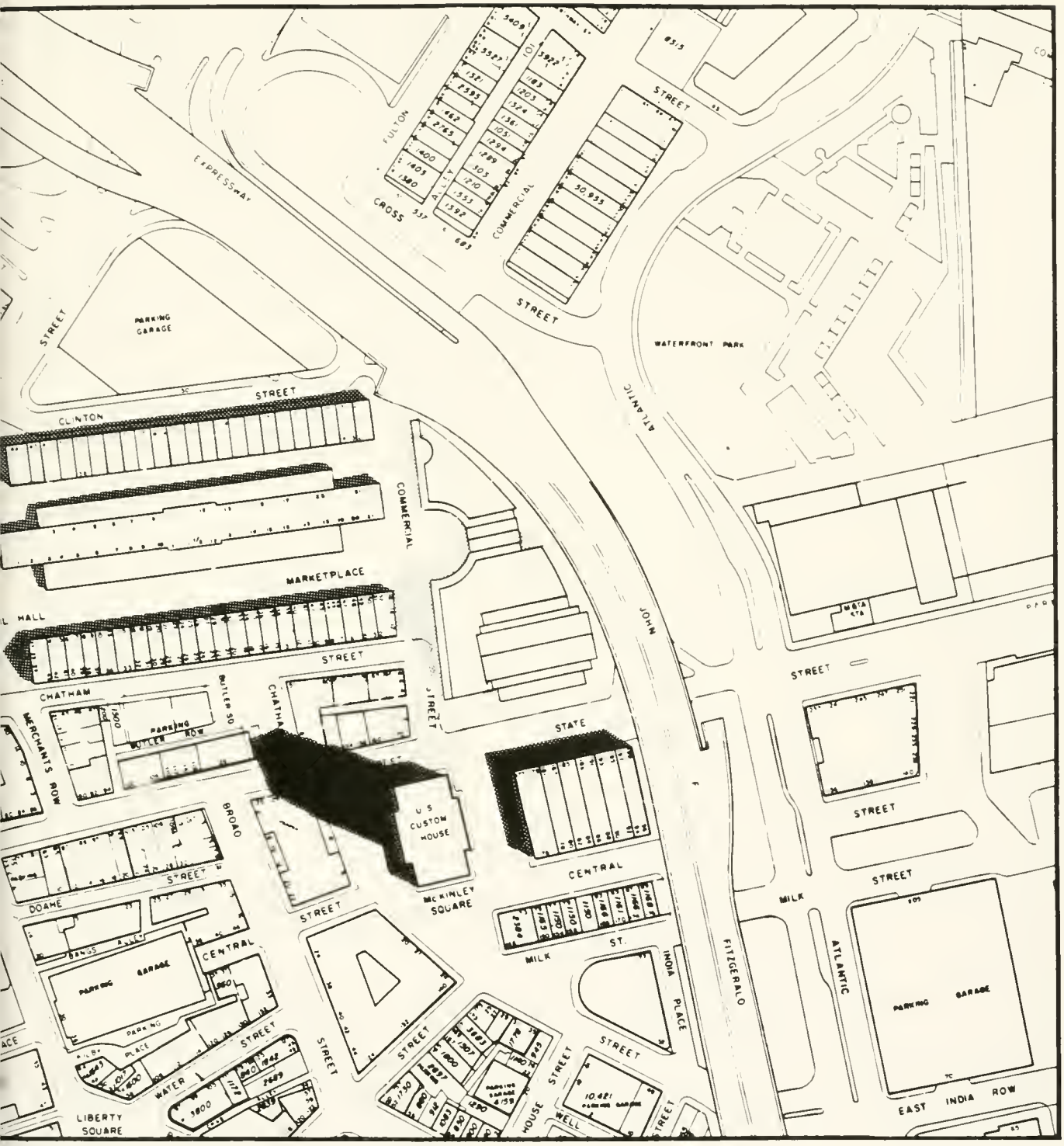
ADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: MARCH 21/ SEPT. 23 TIME 4:00 PM



MARKETPLACE CENTER

STON MA

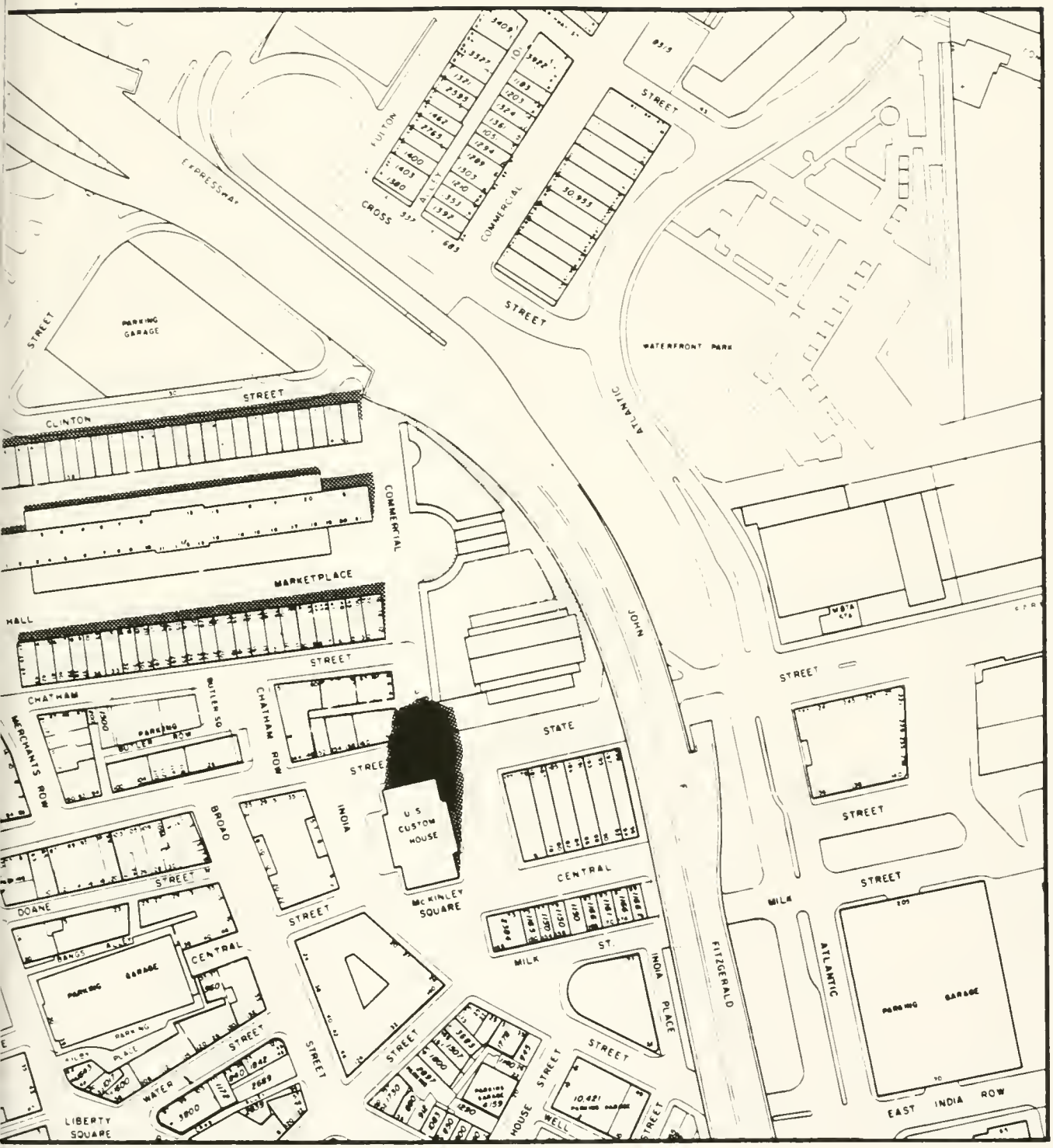
HADOW STUDY

0 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 10:00 AM



ARKETPLACE CENTER

TON MA

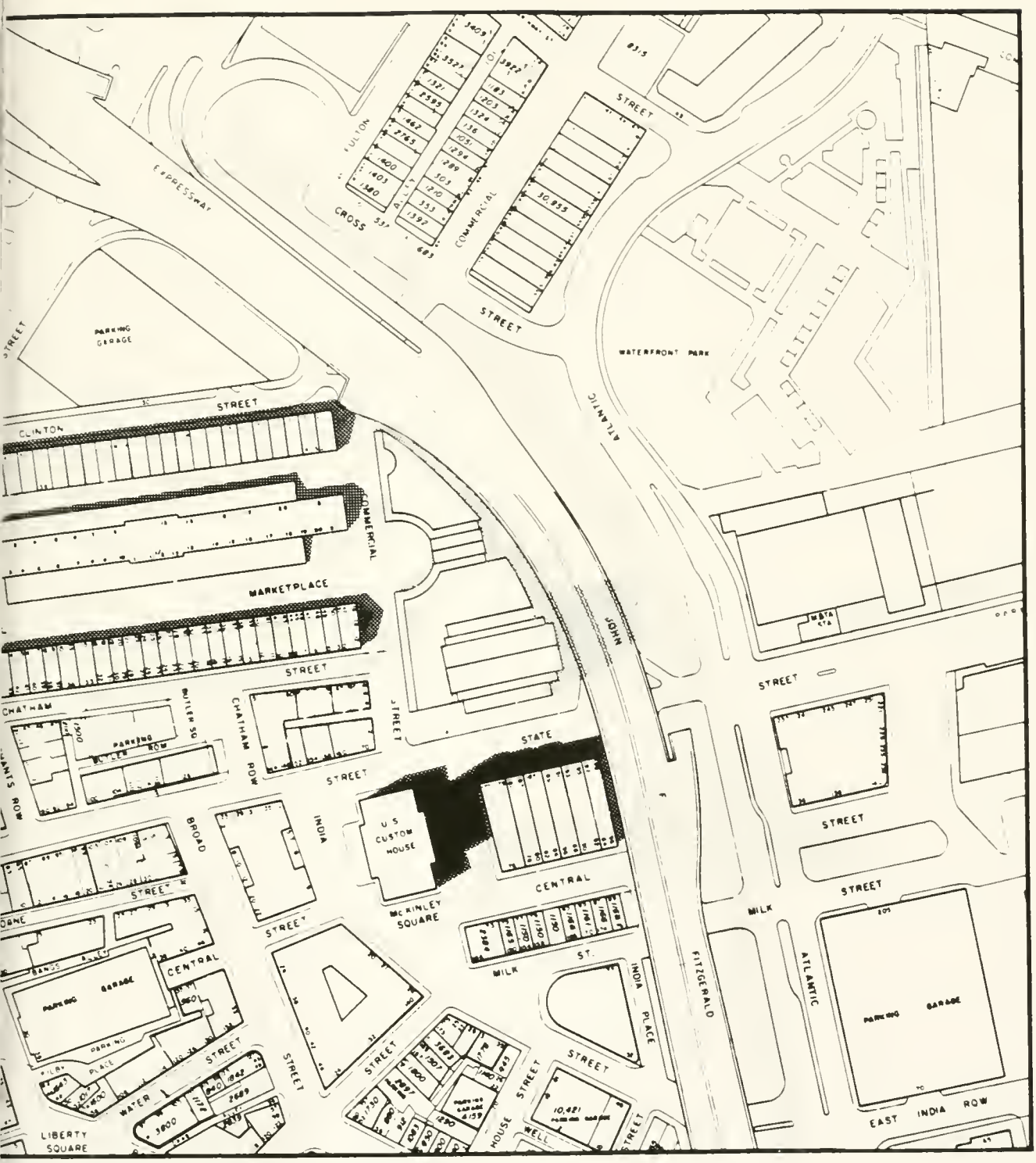
ADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 12:00 AM



ARKETPLACE CENTER

ON MA

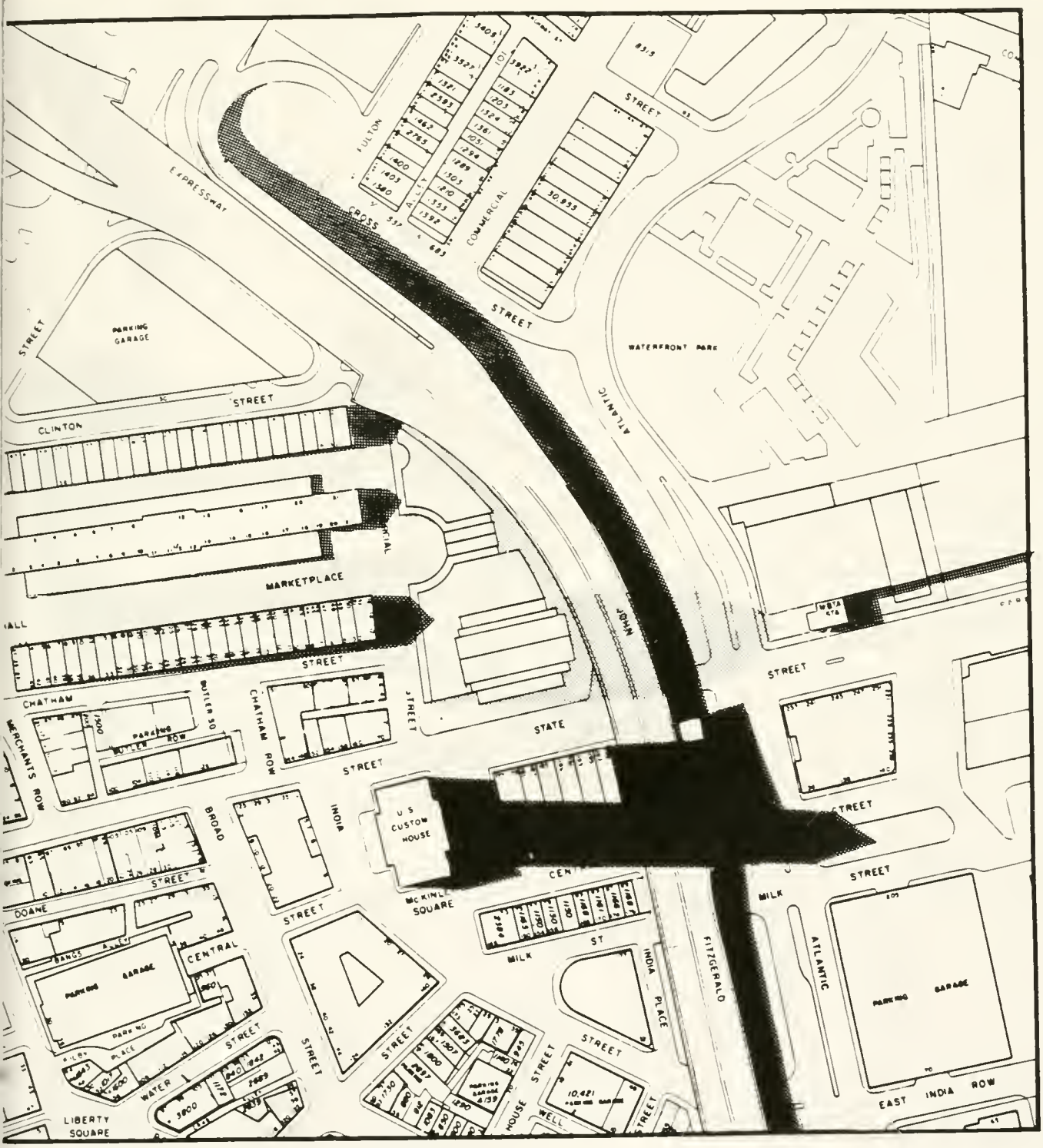
DOW STUDY

0 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: JUNE 22 TIME: 2:00 PM



ARKETPLACE CENTER

TON MA

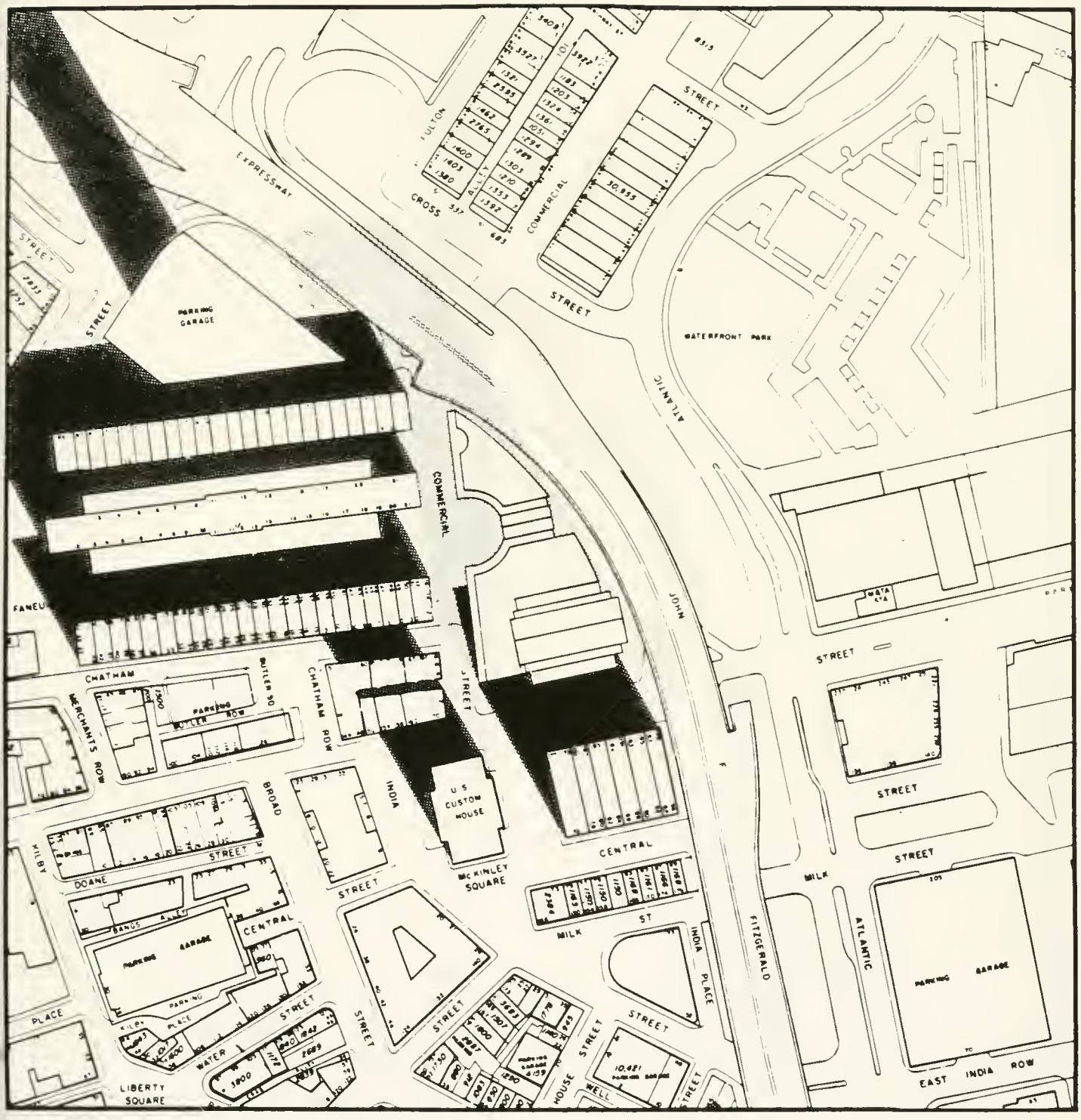
ADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE JUNE 22 TIME 4:00 PM



MARKETPLACE CENTER

BOSTON MA

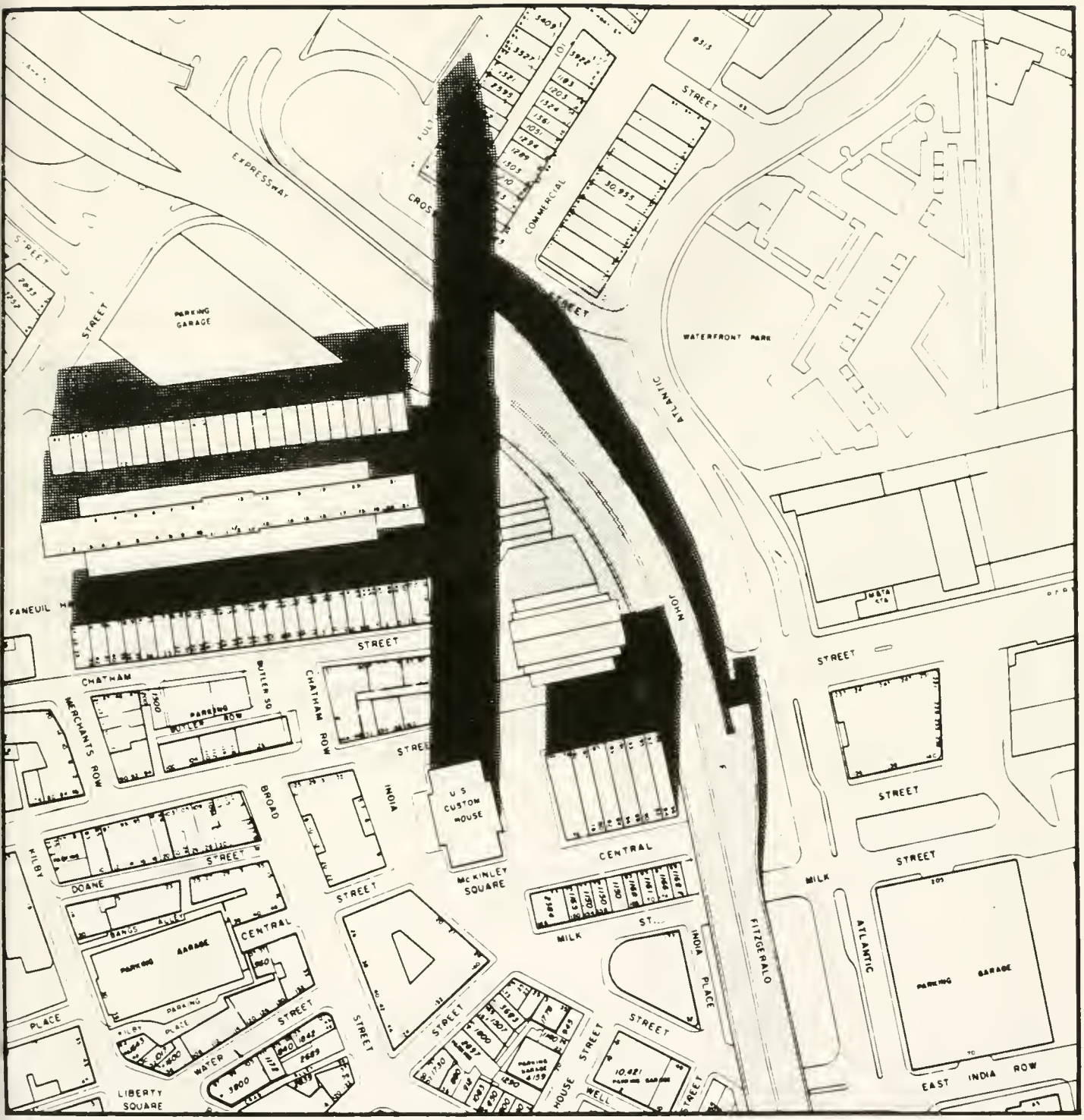
SHADOW STUDY

0 50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DEC. 22 TIME: 10:00 AM



MARKETPLACE CENTER

BOSTON MA

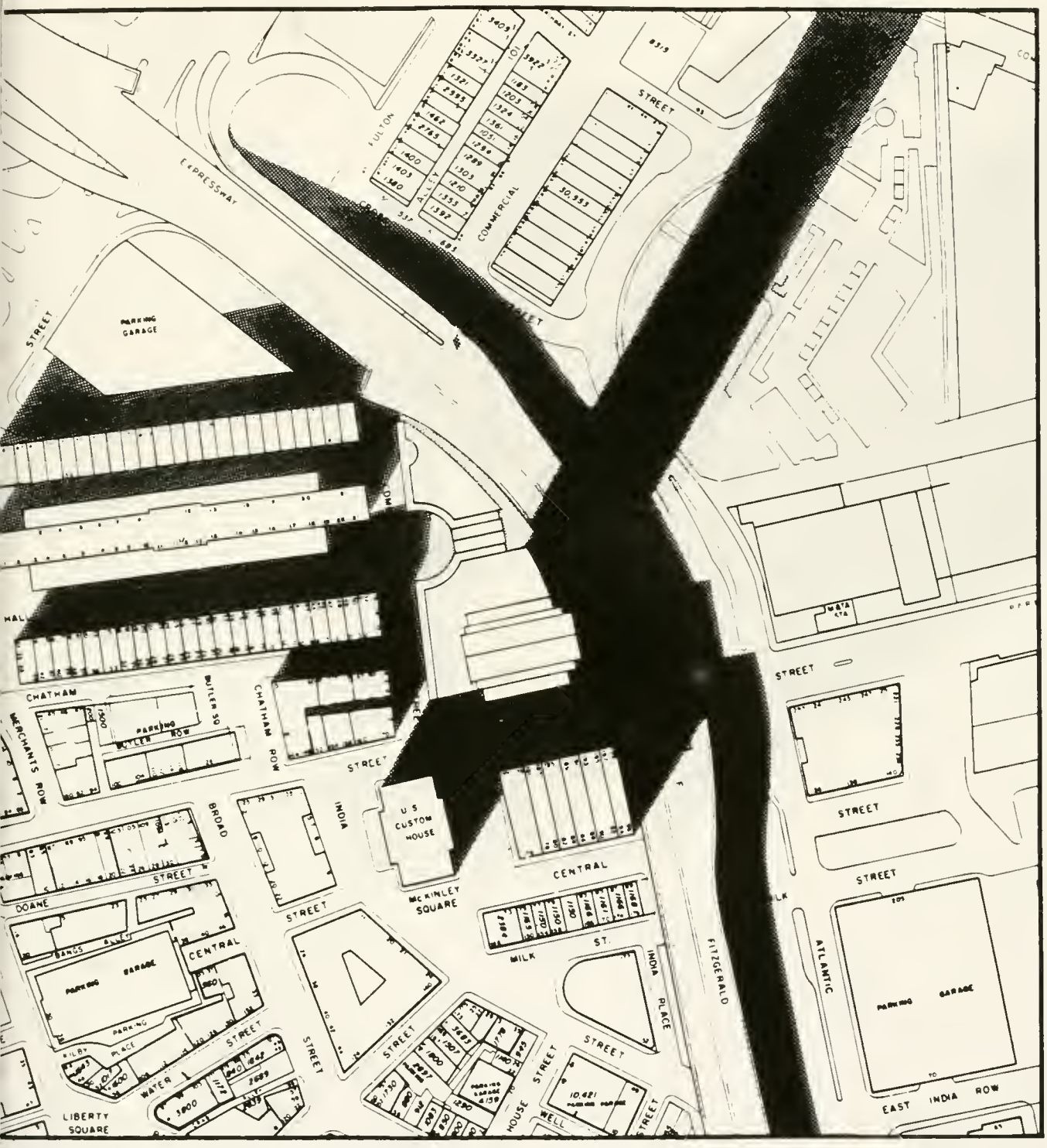
SHADOW STUDY

0 50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DECEMBER 22 TIME: 12:00 AM



ARKETPLACE CENTER

TON MA

ADOW STUDY

100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DEC. 22 TIME: 2:00 PM

MARKETPLACE CENTER

OSTON MA

HADOW STUDY

50 100 200 300 400

SHADOWS UNDER EXISTING CONDITIONS

ADDITIONAL SHADOWS DUE TO MARKETPLACE CENTER

DATE: DECEMBER 22 TIME: 4:00 PM

4. Visual Impacts

At best, the judgment of a building's visual impact is always subjective. However, it must be recognized that Marketplace Center is to be built on a BRA parcel which is widely recognized for its key location with regard to existing historic resources and its potential as a landmark for visitors to the City arriving via the Central Artery. For this reason, the BRA developer solicitation included stringent design criteria which were required of all developer submittals. Furthermore, the BRA's design review of Marketplace Center is an ongoing process which will continue until the approval of final working drawings and specifications, and on-site material samples.

Together with the BRA, the project's architects have also met with representatives of the Massachusetts Historical Commission and the Boston Landmarks Commission, and as a direct result of their input, the south-west corner of the building was moved southward to better define the "edge" of Historic State Street.

Following are some of the measures which have been taken during the design process to insure that the building is well integrated into its surroundings.

a. The three story base element is low enough to be compatible with the market buildings, yet high enough to visually mask the Central Artery from the pedestrian environment.

b. The office element is set back from Commercial Street to allow better views of the Custom House Tower from the "Walk-to-the-Sea".

c. Rather than being a simple rectangle in plan, the office building has stepped corners - an architectural technique to visually reduce the bulk of a building.

d. The top of the office building has a pitched roof so that, in urban design terms, the long axis of the building relates to the Faneuil Hall Markets and the Long Wharf Hotel. This emphasizes the linearity and continuity of the "Walk-to-the-Sea".

e. The building will be predominantly granite to match or complement the surrounding granite buildings.

f. All pedestrian areas will be paved in brick and granite with treatments designed by William Pressley and Associates, the same Landscape Architect who designed the Faneuil Hall Markets. Through the visual flow of paving, lighting, landscaping and street furniture, it is intended that there will be no noticable boundary between Marketplace Center and the Faneuil Hall Markets.

The single most important change in the building throughout the

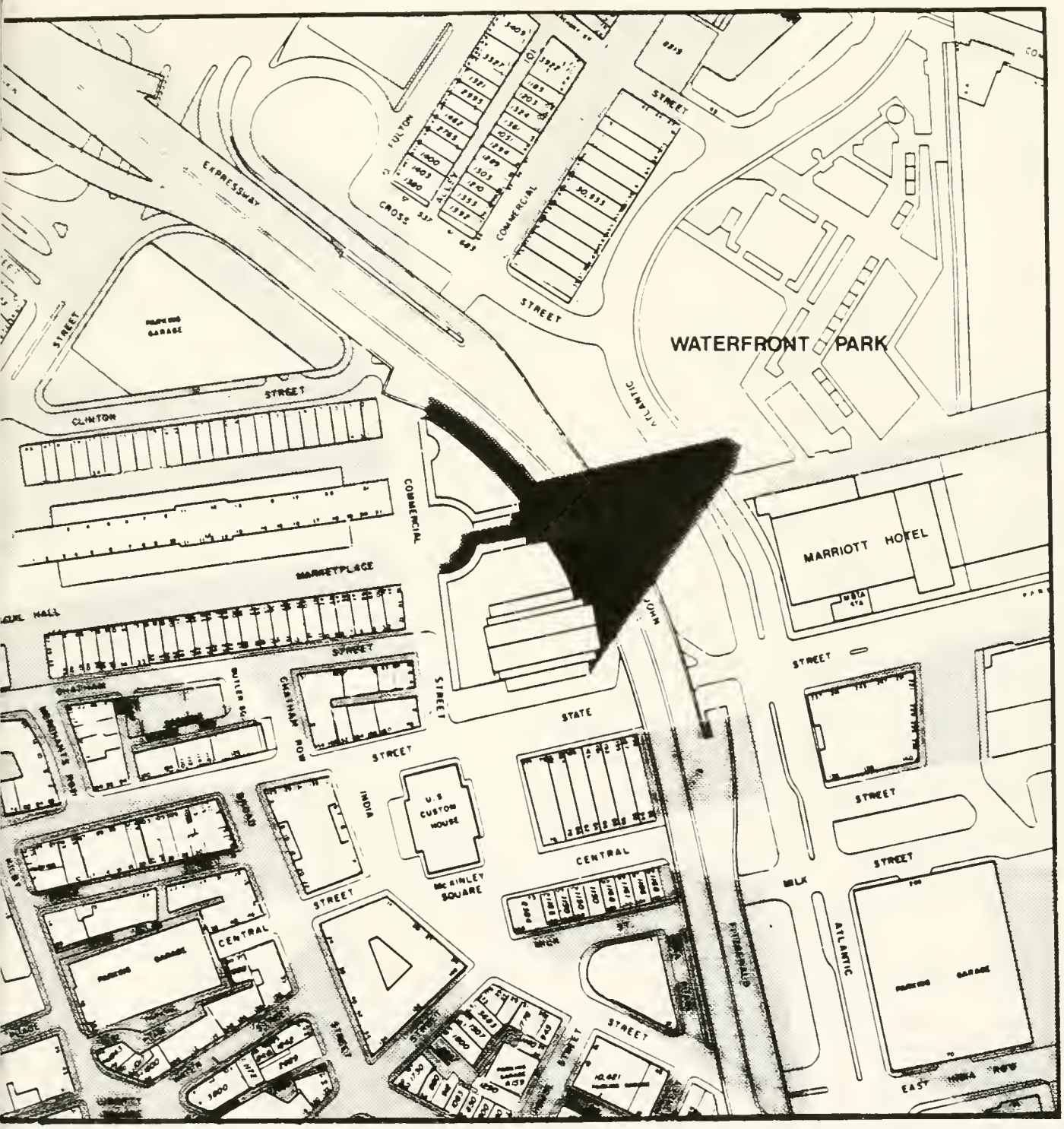
design review and MEPA processes, has been the height. After carefully studying the building at the 280 foot height, the decision was made to remove 5 complete office floors so that the height is now 220 feet. Because the office element was moved back from State Street, this means that the bulk of the building is now significantly less than that originally submitted to the BRA.

Following is a table which shows how the project has evolved during the design review process and the MEPA Environmental review. The architect, WZMH Group Inc. has reviewed the design at various stages with representatives of the following:

1. Boston Redevelopment Authority
2. MEPA Unit Staff
3. Massachusetts Historical Commission
4. Boston Landmarks Commission
5. Massachusetts Coastal Zone Management
6. Boston Society of Architects
7. Preservation Alliance
8. Faneuil Hall Markets Inc.
9. Sierra Club

URBAN DESIGN CHRONOLOGY

	Height	Office Floors	F.A.R.	Typical Office Floor	Approximate Gross Area
1. Original submission to B.R.A. and basis of E.N.F.	220 Ft.	16	5.8	25,000 Sq. Ft.	506,000 Sq. Ft.
2. Early design review-office element moved away from Commercial Street-- submission of Draft E.I.R.	284 Ft.	21	6.0	20,055 Sq. Ft.	543,000 Sq. Ft.
3. Continued design review-base moved out to State Street at request of Mass. Historical Comm. and Boston Landmarks Commission-submission of supplement to draft E.I.R.	284 Ft.	21	6+	20,055 Sq. Ft.	549,000 Sq. Ft.
4. Final B.R.A. design approval and submission of final E.I.R.	220 Ft.	16	5.25	20,055 Sq. Ft.	447,000 Sq. Ft.



MARKETPLACE CENTER

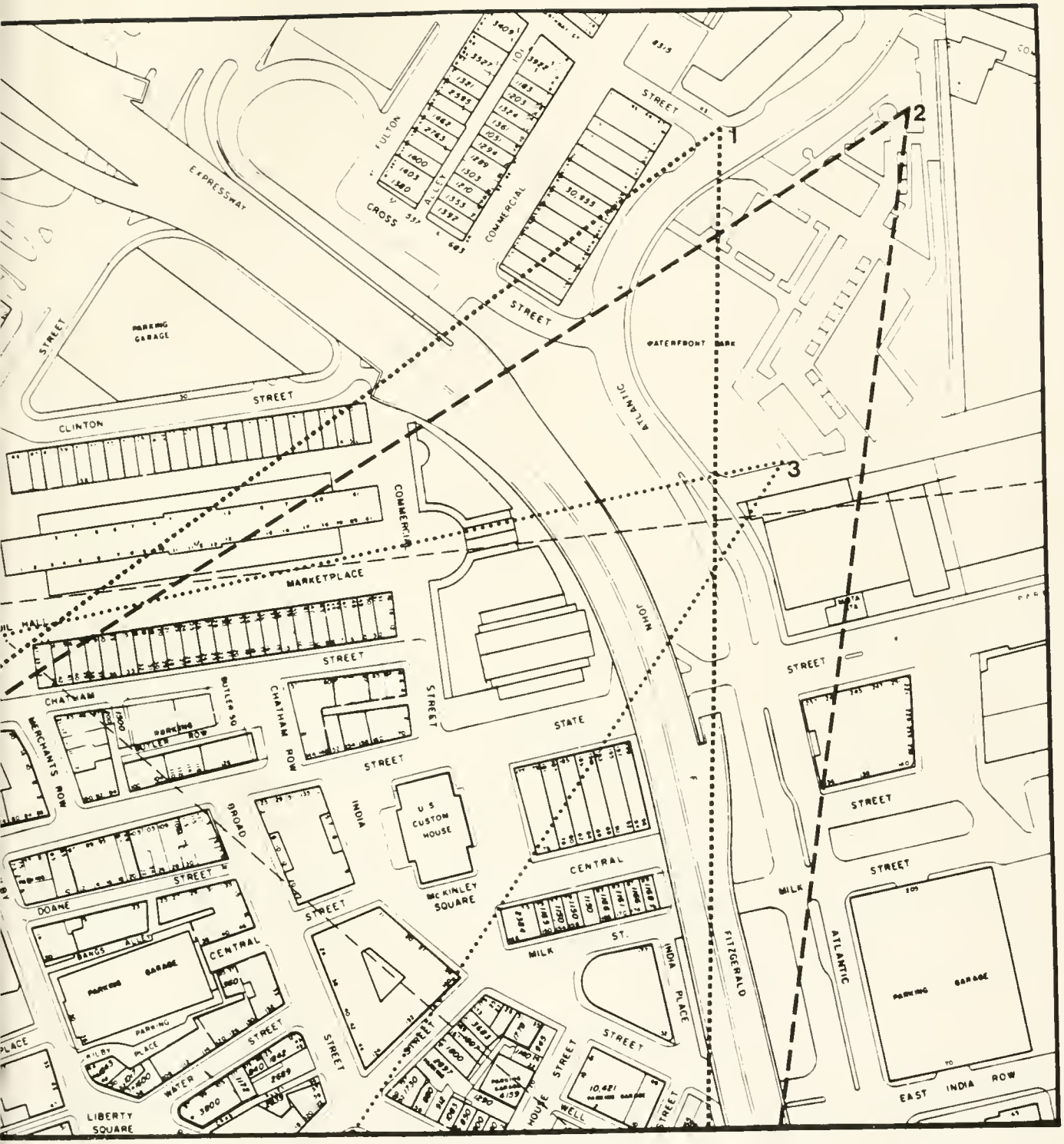
BOSTON MA

VISUAL IMPACT STUDY

SUBJECT BUILDING:
Custom House

EXISTING AREA OF TOTAL VISUAL OBSTRUCTION

ADDED AREA OF TOTAL VISUAL OBSTRUCTION



MARKETPLACE CENTER

OSTON MA

SMALL SCALE KEY PLAN

50 100 200 300 400

BOSTON PUBLIC LIBRARY
3 9999 06315 088 0